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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,059	04/15/2004	James Weldon	67,010-096; H2755-SUN	7215

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EXAMINER

PATEL, DHARTI HARIDAS

ART UNIT PAPER NUMBER

2836

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/825,059	Applicant(s) WELDON, JAMES	
	Examiner Dharti H. Patel	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103[a] which forms the basis for all obviousness rejections set forth in this Office action:

[a] A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motsenbocker, Publication No. US 2004/0090195.

With respect to Claim 1, Motsenbocker teaches a motor controller [motor controller for a watercraft, par. 0094 lines 1-7] comprising: an interface for manually entering values of a motor output [par. 0156, the operator interfaces with the boat's computer; par. 0164, the interface could consist of pushbuttons or a keyboard]; an input power setting determining module [the watercraft's computer/ microprocessor functions as the input power setting determining module, par. 0032] that automatically determines a motor input power setting based upon entered motor output values [par. 0095 lines 20-24; par. 0103 lines 5-9; the power output of the motor is set by computer/microprocessor to maintain a certain propeller slip, par. 0047, 0121, 0122, 0123, 0127. The watercraft's computer will not allow the propeller motor's output to exceed the power output required for a determined amount of propeller slip, par. 0032, 0035]; and a display portion that provides a visual display of the determined motor input power setting [par. 0041 lines 3-8; par. 0117; Fig. 8 and Fig. 9 display devices].

With respect to Claims 2 and 9, Motsenbocker teaches said values of motor output comprise a motor rating value [par. 0088, 0090, 0091].

With respect to Claims 3 and 10, Motsenbocker teaches said values of motor output comprise a motor efficiency value [par. 0031, 0032, 0033, 0041].

With respect to Claim 4, Motsenbocker teaches said values of motor output comprise an external current transformer value [par. 0105 says U.S. 4355274 by Bourbeau is a type of induction motor suitable for use with Motsenbocker's invention. Bourbeau teaches the use of current transformers, which are widely used in the art to monitor current, in the control of an AC induction motor in Fig. 4, current transformers 128, 130, 132].

With respect to Claims 5 and 12, Motsenbocker teaches a trip module [contained in the computer/electronics of the watercraft's controls] that automatically interrupts power to the motor responsive to an actual motor input power exceeding a motor input trip value that is based at least in part upon a motor output trip value [par. 0032, par. 0035, the trip module is implicit to Motsenbocker since the watercraft's computer will not allow the propeller motor's output to exceed the power output required for a determined amount of propeller slip].

With respect to Claims 6 and 13, Motsenbocker teaches the controller [contained in the computer/electronics of the watercraft's controls] automatically determines said motor input trip value based upon an entered motor output trip value [the output trip value is the desired slip value of the propeller, which is

based on a an input power setting of the motor, par. 0032; par. 0035; par. 0095 lines 20-24; par. 0103 lines 5-9].

With respect to Claims 7 and 15, Motsenbocker teaches said interface selectively locks to prevent a user from changing a setting of the controller [this is implicit to Motsenbocker since power boats have ignition switches to lock the watercraft when not in use, to prevent unauthorized use by others; as exemplified by Wilkinson U.S. 6752134, col. 16 lines 14-15].

With respect to Claim 8, Motsenbocker teaches a machine assembly [the assembly is the motor controller and the watercraft, par. 0094 lines 1-7] comprising: a motor [par 0002, 0030] having associated values of motor output [the output values of the motor are from 0 to 100% power]; a device [par. 0030, the watercraft's propeller] driven by said motor; an input power setting determining module that automatically determines a motor input power setting, using the associated motor output values [par. 0095 lines 20-24; par. 0103 lines 5-9; the power output of the motor is set by computer/microprocessor to maintain a certain propeller slip, par. 0047, 0121, 0122, 0123, 0127. The watercraft's computer will not allow the propeller motor's output to exceed the power output required for a determined amount of propeller slip, par. 0032, 0035]; and a display portion that provides a visual display of the determined motor input power setting [par. 0041 lines 3-8; par. 0117; Fig. 8 and Fig. 9 display devices].

With respect to Claim 11, Motsenbocker teaches said device comprises

a pump [the watercraft's engine is a type of pump since it is powered by a motor, has a propeller designed for fluid movement, and actively displaces water from one point to another when operating].

With respect to Claim 14, Motsenbocker teaches an interface for allowing a user to manually enter the associated values [par. 0125, operator enters values into a computer].

With respect to Claim 16, Motsenbocker teaches a method of determining a motor input power setting comprising the steps of: receiving values of a motor output including at least one of a motor rating value [Paragraph 0046, line 7] or a motor efficiency value [Paragraph 0042, line 3]; and automatically determining a motor input power setting based upon the received values of motor output [par. 0095 lines 20-24; par. 0103 lines 5-9; the power output of the motor is set by computer/microprocessor to maintain a certain propeller slip, par. 0047, 0121, 0122, 0123, 0127. The watercraft's computer will not allow the propeller motor's output to exceed the power output required for a determined amount of propeller slip, par. 0032, 0035].

With respect to Claim 17, Motsenbocker teaches displaying the determined motor input power setting [par. 0041 lines 3-8; par. 0117; Fig. 8 and Fig. 9 display devices].

With respect to Claim 18, Motsenbocker teaches manually entering the motor output values [par. 0125 lines 1-6, Paragraph 0031, 0032, 0033, 0041].

With respect to Claim 19, Motsenbocker teaches automatically determining an actual input power trip value responsive to a received motor output trip value and determining whether an actual input power corresponds to the trip value [the output trip value is the desired slip value of the propeller, which is based on a an input power setting of the motor, par. 0032; par. 0035; par. 0095 lines 20-24; par. 0103 lines 5-9; the boat's computer will not allow the propeller motor's output to exceed the power output required for a determined amount of propeller slip].

With respect to claim 20 [new], Motsenbocker comprising manually setting the motor input power setting responsive to observing the determined motor input power setting [the operator manually adjusts the motor power/speed after observing that the current speed is generating too much propeller slip/inefficiency].

Response to Arguments

2. Applicant's arguments filed 07/17/2006 have been fully considered but they are not persuasive.

Applicant argues on page 5 of Remarks that Motsenbocker et al. [U.S. 2004/0090195] does not display motor input power settings information. However, paragraphs 0041-0047 outlines the details of such a system: Par. 0041-"the analog meter having a display surface with at least two visual indicator areas that indicate desirable slip and excessive slip." Par. 0042 states: " a visual display comprising: (a) a propeller rotational speed electrical input, (b) a

comparison signal electrical input, and (c) a visual indicator, wherein the signal of (b) is compared with the propeller speed signal input of (a) to generate a continuous output analog or digital signal used by the visual indicator to continuously indicate propeller efficiency.

The display of the propeller efficiency includes the motor input power setting information, which is (a) and (b) above, since speed and power are directly related in motors. Additionally, paragraph 0046 outlines an additional embodiment that uses (b) a reference electric signal that is proportional to motor power, motor current, and/or motor speed."

Applicant argues on page 5 of Remarks, with respect to amended claim 16, that motor output values are not utilized in Motsenbocker, and that Motsenbocker's technique of controlling propeller slip has nothing to do with the motor's rating or efficiency value. The examiner submits that that this is stated in par. 0041-0046 as explained above. The motor efficiency is a direct result of the desired inputted speed/rpm of the boat measured against actual propeller slip, which is then displayed visually for the boat operator.

Applicant's arguments are considered to have been successfully rebutted in view of the response to argument as given above. Accordingly,

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

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DHP
09/29/2006



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